



TREADMILL

OWNER'S/SERVICE MANUAL

TMX22

CONTACT INFORMATION

For parts, service, and sales call:

TRACKMASTER FITNESS

(866) 487-2256

WARNING

Before permitting anyone to use the treadmill,

- warn them about the risk of falling while the belt is in motion
- stress the need for caution
- demonstrate the proper mounting and dismounting methods
- show them how to use the treadmill as described in this manual
- have each user do a supervised “test walk” at minimum belt speed to review and practice walking techniques

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Introduction

Congratulations on the purchase of your new TRACKMASTER® treadmill. These fine machines have been in production since 1977 and represent state-of-the-art design for heavy duty, institutional treadmills. Thousands of facilities have enjoyed years of daily use provided by dependable TRACKMASTER® treadmills.

The durable TMX22 was designed and built to withstand the extraordinary demands of fitness clubs, corporate health centers, hospital wellness programs, physical therapy facilities, and cardiac rehabilitation facilities.

This manual covers the installation, operation, and service of your new TRACKMASTER® treadmill. If you have questions, consult this manual first.

Please remember to complete and return the Warranty Registration Card. Returning the registration card will help us to inform you of product updates.

Notices

Three different levels of notices throughout this manual alert you to important information: Notes, Cautions, and Warnings.

Notes

Note statements provide additional information. For example,

Note For maximum safety and efficiency, the treadmill must have its own dedicated power outlet.

Cautions

Caution notices inform you of potential hazards that could result in equipment damage or injury. For example,

CAUTION

Do not use silicone sprays to wax your treadmill. To do so may void the warranty and can cause you to slip.

Warnings

Warnings alert readers to hazards that *will* result in serious injury or death. For example,

WARNING

Never open the hood of the treadmill while it is plugged into a power outlet. Line voltage will cause severe injury or death.

Drawings

Assembly drawings are shown in Appendix B.

Directional Orientation

References to left, right, front, and rear assume that you are on the treadmill, facing forward.

Customer Service

If you need service and/or replacement parts for your TRACKMASTER® treadmill, please contact TRACKMASTER.

Please include the treadmill serial number in all correspondence. The serial number is located below the hood on the front of the treadmill.

Note Your TRACKMASTER® treadmill was carefully tested and left the factory in optimum working condition. If any damage occurs during shipping, note the damage on the shipping documents, contact the shipper immediately, and file the appropriate claims. Please have the model and serial numbers ready when you contact TRACKMASTER.

Specifications

The specifications below apply to the TRACKMASTER® TMX22 treadmill.

Treadmill

- 400-lb. capacity
- Steel chassis with epoxy powder-coat finish

Drive System

- Heavy-duty 2 hp AC inverter duty motor
- 200-240VAC, 1-phase, 50-60 Hz, 15-amp power supply
- 115VAC, 1-phase, 50-60 Hz, 20-amp power supply (optional)

Note To function properly, each treadmill must have an electrical circuit dedicated for its exclusive use. A non-dedicated circuit could cause your treadmill to malfunction.

Control System

- Keypad speed control
- Digital LED speed display
- Speed resolution
 - 0.1 mph
 - accuracy $\pm 2\%$
 - self-calibrating digital signal
- Keypad elevation control

- Digital LED incline display
- Incline resolution
 - 0.5% resolution
 - $\pm 2\%$ accuracy
 - self-calibrating digital signal
- LED function display (see “Status Display Window” on page 6-3)
 - calories burned
 - calories burned per minute
 - METs
 - heart rate
 - elapsed time
 - distance
 - pace

Speed Range

- 0.5 to 12 mph (standard)
- 0.8 to 19 kph (optional)

Incline Range

- 0 to 15%
- 0 to 25% (optional)

Running Surface

- 22 in. \times 63 in.
- cushioned
- lubricated
- low-profile (8 in. from floor)

Floor Surface Requirements

- 30 in. \times 88 in. level surface

Safety Information

TRACKMASTER® treadmills meet or exceed all applicable product safety requirements for motor-operated exercise machines. TRACKMASTER® is listed by Engineering Testing Laboratories (ETL); however, all motorized equipment is potentially dangerous if used incorrectly. Before using the TRACKMASTER® treadmill, follow all precautions in this section and read the entire Owner's Manual thoroughly. Use the TRACKMASTER® treadmill only as described.

WARNING

Serious injury could result from loss of balance or falls. To reduce the possibility of serious injury, carefully follow the precautions below.



- Read this Owner's/Service Manual before operating the treadmill.
- Check the treadmill before use.
- Wear appropriate clothing and running shoes.
- Place the treadmill on a level, unobstructed surface.
- Connect the treadmill to a grounded outlet that supplies the correct voltage and amperage.
- Never stand on the belt when starting the treadmill.
- Do not step onto or off the belt if it is moving faster than 1.5 mph.
- Always slow the treadmill to its minimum speed before stopping.
- Never allow children or pets near the machine without careful supervision.
- Keep hands, feet, and clothing away from any moving parts.
- Never drop or insert objects into any opening.
- Avoid draping towels over the safety side rails or dropping objects on the belt while the treadmill is running.

WARNING

Serious injury or death could result from electric shock. To reduce the possibility of electric shock, carefully follow the precautions below.

- Connect the treadmill only to a properly grounded outlet. See "Grounding Instructions" on the following page.
- Always unplug the treadmill from the electrical outlet before cleaning.
- To disconnect, set the power switch to the OFF position and remove the plug from the outlet. When the power is off, the green light next to the power switch is dark.
- Never operate this unit with a damaged power cord or plug, when the unit is wet, or if it is not operating properly.
- Never use extension cords.
- Keep the power cord out of traffic areas and away from heated surfaces.
- Always unplug the machine prior to service and maintenance.
- Do not use the treadmill outdoors.

WARNING

Before beginning any exercise program, check with your physician to determine your present physical condition and capabilities regarding aerobic exercise. Know your limits and requirements for warm-up, target and maximum heart and breathing rates, duration of exercise, cool-down periods, and recovery heart rates. Stop exercising immediately if you feel faint or dizzy, or if symptoms of overexertion appear.

Grounding Instructions

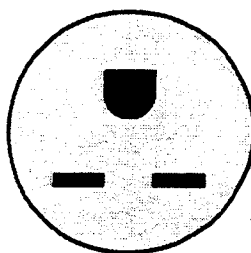
WARNING



TRACKMASTER® treadmills **must** be grounded to reduce the risk of electric shock. If a malfunction occurs, grounding provides a path of least resistance for an electric current. Ungrounded connections may cause electrical shock.

This product is equipped with a 3-wire grounding type plug. The plug will fit only into a grounding-type outlet. This is a safety feature—do not disable the plug's third (grounding) pin with an adapter. If you are unable to insert the plug in your outlet, or if you are not certain that the outlet is grounded and meets local codes, contact a qualified electrician.

The treadmill is designed to operate on a 200-240VAC/15-amp service (unless you ordered the 115VAC/20-amp power supply option). Make sure the treadmill is connected to an outlet that looks like the illustration below. Never use an adapter or extension cord with this product. If you have any questions or experience any problems, contact TRACKMASTER.



6-15R

Notes

Assembly, Location, and Power Requirements

TRACKMASTER® treadmills are shipped fully assembled unless otherwise specified. After the treadmill is unpacked, move it to the exercise area by rolling it on its front wheels.

CAUTION To move the treadmill over a rough surface such as pavement, use a dolly under the front of the treadmill to prevent damage to the wheels.

Place the treadmill on a level, stable surface—short-pile industrial carpeting is acceptable.

CAUTION Do not place the treadmill on thick or long-pile carpeting. Such carpeting could cause instability, or carpet fibers could get caught in the belt and damage the unit.

Allow adequate clearance around the treadmill, away from obtrusive objects such as weight machines. Obstructions can cause injury to the user or damage to the treadmill.

Keep the treadmill away from sources of moisture such as spas or fountains. Moisture can cause the electronic circuitry to malfunction.

Your TRACKMASTER® treadmill operates on a 200-240VAC, 15-amp service (115VAC, 20-amp optional). The treadmill requires an approved outlet (see Chapter 4, "Grounding Instructions") that is properly grounded, includes a 15-amp circuit breaker (20 amp for the optional 115VAC power supply, neutral line must also be dedicated on 115VAC), and dedicated for the exclusive use of the treadmill.

WARNING

No other equipment may be used on the treadmill circuit. Do not use extension cords.



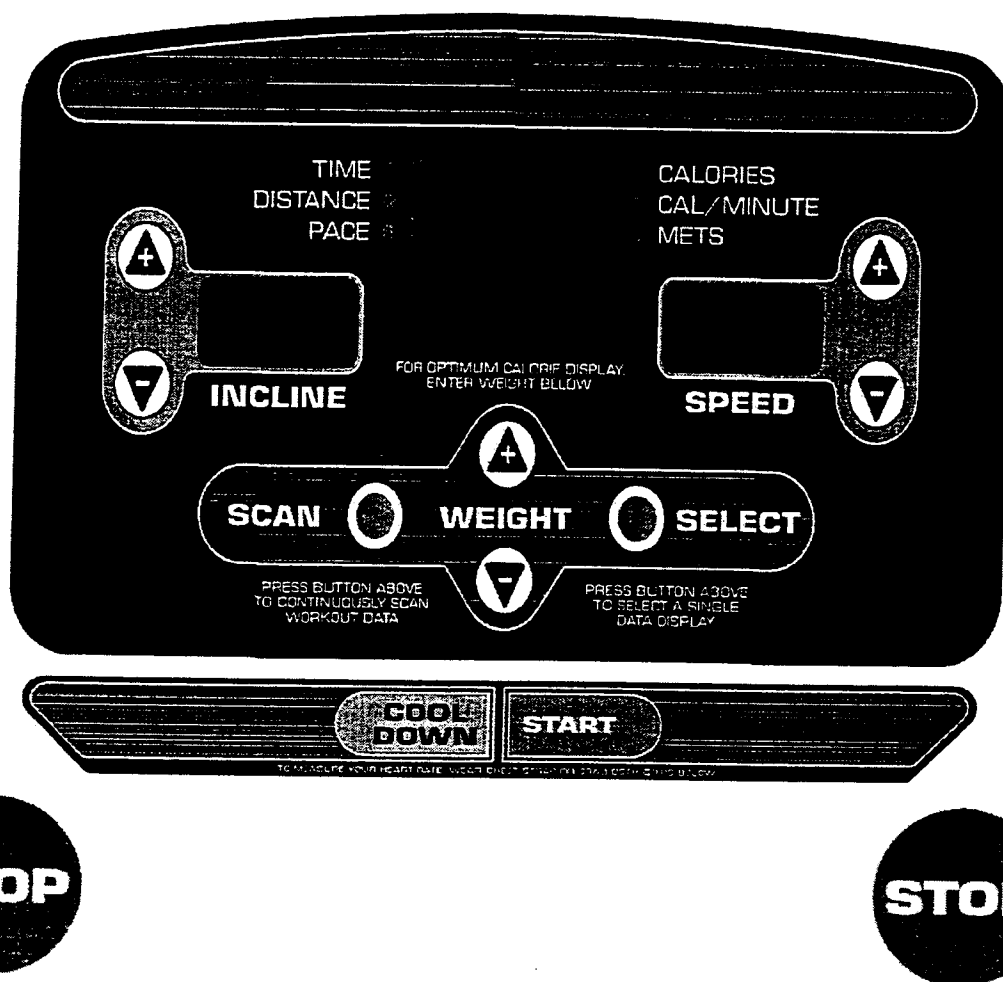
Using an ungrounded, shared, or otherwise improper circuit will void the machine's warranty and may result in major damage to your treadmill's electronic circuits. Using a shared circuit can also cause the treadmill to unexpectedly shut off, resulting in harm to the user.



Ensure that power cords do not cross traffic areas. Exposed power cords can cause a fall resulting in injury.

Ensure that the treadmill master power switch is in the OFF position before plugging the power cord into its power outlet. A power surge through the treadmill electronics could trip the treadmill's circuit breakers.

Controller



Master Power Switch

The master power switch is located next to the power cord on the treadmill. The switch should always be in the OFF position when the treadmill is not in use.

CAUTION

Never use your foot to turn this switch ON or OFF because you could damage the switch and void the warranty. Never plug the treadmill into its power outlet with the master power switch in the ON position because you could cause a power surge, which could trip the treadmill's circuit breakers.

Start Key

Press the Start key to immediately start the belt at minimum speed.

Cool Down Key

Press the Cool Down key to initiate a 60 second cool down phase. The running belt will gradually slow to the minimum speed and then completely stop. The incline will gradually reset to 0%.

Stop Keys

Press either Stop key to halt the running belt within 1 to 5 seconds and reset elevation to 0%.

Speed + / - Keys

Once the running belt has started, press the "+" arrow to increase the speed. Press the "-" arrow to decrease the speed. The display numbers for the speed will increase or decrease slightly faster than the actual belt speed.

Speed Display Window

The speed display window shows the speed of the running belt in miles per hour (a display calibrated for kilometers per hour is optional).

Status Display Window

You can monitor your performance in up to seven different modes in the status display window. Press the Select key to advance to the next display mode. The status display automatically resets to zero each time the running belt stops.

A red light next to the function indicates which information is displayed in the window. The information available includes

- **TIME**—displays the amount of time elapsed for the exercise session
- **DISTANCE**—displays the accumulated distance for the exercise session
- **PACE**—displays the number of minutes needed to run one mile
- **CALORIES**—displays the number calories burned during the workout, based on the weight entered into the controller
- **CAL/MINUTE**—displays the number of calories burned per minute
- **METS**—Displays the amount of METS per minute.
- **HEART**—When wearing a Polar® chest strap, or when using the contact grips, a blinking red heart below the display window indicates the user's current pulse rate. (The Heart must be selected in order to display pulse rate.)

Select Key

Press the Select key to change the display mode in the status window.

Scan Key

Press the Scan key to choose an alternating cycle of all available display modes. Each mode displays for three seconds in the cycle.

Weight +/- Keys

Use the Weight +/- to enter user weight prior to the exercise session. The default is 150 lb.

Note It is important to enter each user's correct weight before the exercise session because all display calculations are based upon this number.

Incline Display

The belt inclination is displayed in the Incline Display window. The minimum elevation is 0% and the maximum is 15% (25% is optional).

Incline +/- Keys

The Incline +/- keys increase or decrease the incline of the running belt in 0.5% increments. Press and hold the + or - key until the desired inclination is displayed. The front of the TRACKMASTER® treadmill will gradually raise or lower until the desired incline is attained.

Checking the Treadmill Prior to Use

Before using the treadmill, check the operation of the machine to ensure that it is ready for service. Make sure that you have followed the instructions given in the previous sections. Clear all debris and packing material from the area around the treadmill.

CAUTION

Ensure that the treadmill's master power switch is in the OFF position before plugging the power cord into its power outlet. If the treadmill is on when you plug in the power cord, a power surge through the treadmill electronics could trip the treadmill's circuit breakers.

1. Plug the treadmill into an appropriate power outlet.
2. Turn the treadmill's master power switch to the ON position.
3. The controller should now be illuminated. The treadmill will not start unless the minimum speed is displayed in the Speed display window.
4. Straddle the running belt, grip the safety rails, and press the Start key.
5. Dismount the treadmill, leaving the belt running at minimum speed. Keep hands, feet, and clothing away from the moving parts.
6. Examine the position of the running belt on the rear roller; it should lie on the approximate center of the roller. If so, accelerate the belt to 6 mph and ensure that the belt is tracking in the approximate center of the rear roller. If it is not centered, slow the belt to the minimum speed and stop the treadmill by pressing the Stop key (see "Running Belt Adjustment" on page 9-3).
7. If necessary, adjust the belt with a 1/4-in. Allen wrench.
8. If the belt is tracking properly, slow the treadmill to minimum speed and stop it by pressing the Stop key.
9. While straddling the belt, press the Start key to start the belt. Set the speed to minimum.
10. Ensure that the minimum speed is displayed in the window. While gripping the safety rails, put one foot gently on the moving belt and allow the foot to move back with the belt. Repeat the action to get the feel of the belt movement. When comfortable, step briskly onto the moving belt while gripping the safety rails. Walk normally, keeping

up with the pace of the treadmill. Within a short time, you will be able to walk comfortably and select a speed that matches your capabilities.

11. Slow the treadmill to minimum speed; then stop it by pressing the Stop key.

Before your TRACKMASTER® treadmill left the factory it was subjected to rigorous and thorough testing. There is little likelihood of malfunction. If you do need assistance, please contact TRACKMASTER.

Barring any need for service or belt adjustment, your TRACKMASTER® treadmill is ready to use.

Using the Treadmill

WARNING



All motorized equipment is potentially dangerous if used incorrectly. Serious injury may result from loss of balance or falls. Never stand on the belt when starting the treadmill. Never step on the belt if it is moving faster than the minimum speed. Read the precautions and this owner's manual completely prior to using the treadmill.

1. Install the treadmill and check for proper operation before using it.
2. When you are ready to use the treadmill, grasp the front or side safety rails and position your feet on the nonskid strips located on either side of the running belt. Note the Stop key on the control pad. Do not use the treadmill if the Stop keys are not working.
3. Press the Start key to start the running belt.
4. While gripping the safety rails, put one foot onto the moving belt and allow your foot to move back with the belt. Do this several times to get the feel of the belt movement. When you are comfortable, step briskly onto the moving belt.
5. Adjust the speed UP or DOWN to the desired belt speed.
6. On rare occasions, there may be a need to perform an emergency stop while using the treadmill. For this reason, each treadmill user must determine the maximum speed at which they can stop the treadmill.

Begin at the minimum speed; then press the Stop key. (Remember to hold the safety rails.) If you can stop comfortably without losing balance, increase the speed incrementally and press the Stop key intermittently. Evaluate comfort and stability while stopping at each higher speed. When you reach the speed at which stopping is uncomfortable or causes a loss of balance, slightly decrease the speed.

7. This pace is the **maximum comfort level**, the maximum speed at which you can operate the treadmill.

WARNING

Do not exceed your maximum comfort level. If you exceed this level, you could fall and injure yourself.

8. Adjust treadmill's incline UP or DOWN using the incline +/- arrow keys to the desired setting.
9. When you finish your workout, press the Cool Down key. The treadmill gradually slows to the minimum speed and stops.

Stop Procedure

Either of the red Stop keys instantly cut power to the drive motor. The treadmill belt stops completely within 1 to 5 seconds depending on the speed.

Preventive Maintenance

Regular cleaning and maintenance is essential to the long life of your treadmill, and keeps it operating at its best for many years.

We recommend that you record all maintenance and service in a log (as shown in Appendix A). Please refer to drawings found in Appendix B to guide your service efforts. The following procedures will help ensure many years of safe and trouble-free operation.

WARNING

Before cleaning the TRACKMASTER® treadmill, turn off the main power switch and disconnect the treadmill from its power outlet. Never use wet cleaning materials near a power source; you could get an electric shock.

CAUTION

To preserve the conditions of your warranty, all repair procedures (other than normal maintenance) should be performed by a qualified service provider. Contact TRACKMASTER.

Use only TRACKMASTER® replacement parts. Using other parts may void your warranty, and may cause your treadmill to malfunction.

Daily Maintenance

Note Before daily operation, ensure that the treadmill is functioning properly.

- Wipe the treadmill to remove soil, moisture, and perspiration.
- Clean the hood and handrails with a soft cloth dampened with a solution of warm water and mild detergent.
- Remove stubborn stains and scuff marks with a nonabrasive, industrial strength cleaner such as Formula 409® (spray all cleaners on a terry cloth type rag, avoid spraying cleaners directly onto the treadmill).

Weekly Maintenance

- Vacuum around and under the treadmill. Clean all exposed surfaces with the vacuum. Do not move the treadmill from its original position—to do so will compromise the original belt tracking setting.
- Check running belt tension.

Semiannual Maintenance

- Lubricate the elevation screw with the molybdenum-based grease available from TRACKMASTER. To order molybdenum-based grease, call TRACKMASTER.
- Evaluate the condition of the deck and belt.

Deck and Belt Maintenance

CAUTION Use only TRACKMASTER® replacement parts. Using other parts may void your warranty and cause your treadmill to malfunction.

We recommend that you evaluate the deck and belt every 8,000 miles.

Note The 8,000-mile check is a maximum indicator. Your treadmill may require maintenance much earlier depending upon use and cleanliness of equipment.

You may need to flip or replace the deck depending on its condition (see "Running Belt Replacement" on page 10-1). If the deck is rough or grooved, it will probably need to be rewaxed or flipped (see "Flipping the Running Board" and "Rewaxing the Running Board" on page 9-5). If the deck is grooved, flip it. If the deck is rough, rewax it.

Running Belt Adjustment

Tool required for this procedure:

- 1/4-in. Allen wrench

CAUTION

Because this adjustment is not covered under your warranty, it is important to review these instructions thoroughly before proceeding.

The TRACKMASTER® patented MasterTrack® Belt Tracking System greatly reduces the need to adjust the belt on your TRACKMASTER® treadmill. However, when you first operate your treadmill you may need to adjust the tracking of the belt to conform to your floor. You may also need to adjust the tracking if you move the machine to another location.

Your running belt should remain centered, although a slight amount of movement to the left or to the right is normal during use. Do not allow the running belt to travel all the way to either side.

To adjust the belt tracking, do the following:

1. Turn on the treadmill.

CAUTION

Do not stand on the running belt when starting the treadmill. You could fall, causing serious injury.

2. Increase the speed to 3 mph.
3. Observe the left side of the running belt as it travels over the rear roller. If the belt runs to the right side of the running surface, turn the right bolt one-quarter turn clockwise and turn the left bolt one-eighth turn counterclockwise.

Note When tightening one side of the belt, always loosen the opposite side one-half as much. This procedure gives finer control with less effect on belt tension.

Check the belt after two minutes with the treadmill running at approximately 7 mph. If the belt does not correct itself, continue with slight turns until the belt is in the center of the running surface. If the belt runs toward the left, use the left adjustment.

Note Uneven floors accelerate belt misalignment. This situation may require larger and more frequent adjustments to prevent belt damage.

Belt Tension Adjustment

The running belt may stretch and loosen with regular use. This looseness is noticeable when the belt tends to hesitate or stick. If the belt is loose and slipping, tighten both adjustment bolts equally (clockwise) in small increments until the slipping stops.

Exterior Care

The epoxy powder-coat finish on your TRACKMASTER® treadmill is as durable as automobile finishes and requires minimal care. Do not allow perspiration to build up on your treadmill. Wipe the unit daily.

Elevation Screw Lubrication

Tools required for this procedure:

- TRACKMASTER® molybdenum-based grease (Mobil #530304 or equivalent)
- clean, lint-free cloth
- small paint brush
- Phillips-head screwdriver

Clean and lubricate the treadmill elevation screw once a year. In high use environments, clean and lubricate once every six months.

1. Raise the treadmill to its maximum elevation.
2. Turn the main power switch to the OFF position and unplug the treadmill from its outlet.
3. Using a lint-free cloth, remove the old lubricant and accumulated dust from the elevation screw.

4. Use a small brush to reapply a thin coat of grease to the threads of the elevation screw. Do not use too much grease—the excess could squeeze onto the floor and create a slip-and-fall hazard.
5. Return the unit to service.

Running Board Removal and Maintenance

Running Board Removal

1. Remove the two running belt-tensioning bolts and set bolts and end caps aside.
2. Push take-up roller against the running deck in order to have as much belt slack as possible.
3. Lift the outside edges of the running belt. On each side of the running belt are three Allen-head screws which secure the running board to the three crossbars.
4. Remove all six Allen-head screws (three per side) and pull the running board out of the treadmill.
5. Push the deck to the right and lift the left edge (v-guide) of running board to remove.

Flipping the Running Board

1. Remove the running board from the treadmill and place it on a bench or table at a comfortable height. (Follow the "Running Board Removal" instructions on page 9-5 to remove the board.)
2. Flip the running board. If this surface has not been used, reinstall the board. If the surface has been used before, rewax it.
3. Reassemble the running board in a reverse procedure of the previous steps.

Rewaxing the Running Board

Tool required for this procedure:

- 1,000-watt iron (minimum wattage)

CAUTION

Do not use silicone sprays or any other substances other than TRACKMASTER® wax, which may be purchased directly from TRACKMASTER.

1. Turn the master power switch to the OFF position and unplug the treadmill from its power outlet.

2. Remove the running board from the treadmill, and place it on a bench or table at a comfortable height. (Follow the "Running Board Removal" instructions on page 9-5.)
3. Clean the running board surface with a dry Scotch-Brite® (or similar) pad. Remove as much dirt as possible without damaging the tempered running board surface; then dust the surface with a clean, dry rag.
4. Set the iron temperature to its hottest setting (use an iron rated at 1,000 watts or more). Pour approximately 1/3 cup of the special wax beads down the center of the running board. Hold the iron on the beads until the wax begins to melt.
5. Slowly move the iron up and down the running board in small circular patterns until the running board and wax are hot enough for the board to absorb the wax. The first coat can take up to 45 minutes because the board needs to reach the appropriate temperature to absorb the wax. Once the appropriate temperature is reached, the wax will boil like hot water and then soak into the running board.
6. Be patient! If you do not work the wax in properly, you may have to rewax again much earlier than necessary. When you finish, remove any excess wax from the board by gently buffing the surface with a Scotch-Brite® pad.

Internal Circuit Breaker Location and Resetting

1. All circuit breakers are located at the front of the treadmill below the hood.
2. The circuit breakers are:
 - 2 ea. Power Supply / Relay Board (1/4 amp)
 - 2 ea. Elevation Motor (1 amp [220v] 2 amp [110v])
3. To reset a breaker, push the button.

Note Contact TRACKMASTER for information on possible causes for tripped circuit breakers, and recommended maintenance for the breakers.

Troubleshooting

Running Belt Replacement

CAUTION Use only TRACKMASTER® replacement parts. Using other parts may void the warranty, compromise the safety features, and cause a malfunction.

Tools required for this procedure:

- 1/2-in. socket wrench
 - 1/4-in. Allen wrench
-
1. Elevate the front end of the treadmill approximately 10 in. above the floor.
 2. Lift and support the rear end of the treadmill so the frame is level.
 3. Turn the master power switch to the OFF position and unplug the treadmill from its power outlet.
 4. Remove the end caps by removing the belt tensioning bolts with a 1/4-in. Allen wrench. Remove the three fasteners securing the hood, slide the rubber grommets up the center rail and then the hood.
 5. Push the rear roller forward to loosen the belt.
 6. Remove the 5/16-in. bolt securing the front drive roller; then pull the roller out of the treadmill.
 7. Remove the rear roller.
 8. Remove the running board. (Follow the "Running Board Removal and Maintenance" instructions on page 9-5.)
 9. Remove the 5/16-in. bolts securing each crossbar to mounts and remove.
 10. To reassemble, use the reverse of the previous steps.
 11. When installing the front drive roller, ensure that the timing drive belt is properly located over both timing sprockets.

12. When the installation is complete, and before tensioning the belt, make two visible marks, 50 in. apart on the belt (if the marks do not already exist). Tighten the rear roller take-up bolts evenly until the distance between the two marks measures 50-3/8 in. This will provide the 1% tension recommended by the belt manufacturer.
13. The running belt is now ready for tracking adjustment (see "Running Belt Adjustment" on page 9-3).

Note The running belt will stretch slightly depending upon use. When this happens, you will feel the belt hesitate briefly at each foot strike. Adjust tension immediately if this occurs. Usually, turning both tension bolts one-half turn will give you the proper tension. Do not overtighten the tension bolts. Make one-quarter turn adjustments if the belt seems close to the proper tension.

Roller Removal

CAUTION Use only TRACKMASTER® replacement parts. Using other parts may void your warranty, compromise the treadmill's safety features, and cause your treadmill to malfunction.

Tools required for this procedure:

- 1/2-in. socket wrench
- 1/4-in. Allen wrench
- Phillips-head screwdriver

Front Drive Roller

1. Elevate the treadmill to approximately 12%. Turn the master power switch to the OFF position and unplug it from its power outlet. Remove the screws from the hood; then slide the hood to the top of the front rail and secure it with a bungee cord.
2. Turn both 5/16-in. rear roller take-up bolts counterclockwise until there is no tension on the running belt.
3. Remove the 5/16-in. bolt that secures the front drive roller. Push the roller to the left side of the treadmill; then pull it out.
4. To install the roller, use the reverse of the previous steps. Ensure that the timing belt is correctly placed on both sprockets.
5. Adjust the running belt tension and tracking.

Rear Roller (Driven Roller)

1. Follow the previous steps to remove the driver roller.
2. Remove the end caps.
3. Remove the two 5/16-in rear roller take-up bolts that adjust the running belt.
4. Remove the rear roller by pulling it straight back past the side rails; then out of the belt.
5. Use a reverse of the previous procedure to install the new rear roller and reinstall the front drive roller.

CAUTION

The rollers are heavy, and the roller bearings can be damaged if the roller shaft is allowed to hit the ground vertically. Always handle rollers horizontally and never impact the roller shaft.

Drive Motor Removal

CAUTION

Use only TRACKMASTER® replacement parts. Using other parts may void your warranty and cause your treadmill to malfunction.

Tools required for this procedure:

- Phillips-head screwdriver
 - 9/16-in. wrench
 - 1/2-in. wrench
 - small flat-tip screwdriver
-
1. Turn the master power switch to the OFF position and unplug the treadmill from its power outlet. Remove the screws from the hood; then slide the hood to the top of the front rail and secure it with a bungee cord.
 2. Remove the speed pickup sensor.
 3. Remove the two motor tensioning adjust nuts from the adjustment bolts and loosen the two nuts towards the motor.
 4. Remove the four fasteners that secure the motor base to the motor plate.
 5. Remove the timing belt from the motor pulley.
 6. Remove the motor wires and ground at the inverter.
 7. Remove the drive motor from the unit.
 8. Remove the flywheel, timing sprocket, pulley key, and speed pick-up collar from the old motor, and set them aside.
 9. Install the original parts on the new motor and reinstall in reverse order.

Inverter Drive

The Inverter Drive programs should not be changed unless directed by the factory. To check the programming of the drive, press the Mode button and use the UP arrow until the number "225" appears. Press the Mode button and you are now ready to look at the drive programs. Consult TRACKMASTER before making changes.

WARNING



This section assumes that the repairs will be done by a properly trained and authorized repair technician. All motorized equipment is potentially dangerous if used incorrectly. Read the precautions and this owner's manual prior to attempting any repairs. If the scope of the repairs exceeds the technician's knowledge or experience, call TRACKMASTER for the name of the nearest qualified service repair facility.

Setup Check

WARNING

!!Do not alter unless asked to do so!!

With power ON, press and hold the Speed + and Elevation – keys. After a few seconds "P 1" should appear in the center window. (Sometimes you must release and hold these keys again in order to get into this function.)

1. "P 1" in Center window – "bri" in Speed window. (bri = MPH, Si = KPH)
 - Use UP or DOWN Incline key to toggle between.
 - Press the Select key and "P 2" will appear in the center window.
2. "P 2" in Center window – "0.5" in the Speed window. (Minimum speed)
 - Use UP or DOWN Speed key to adjust setting.
 - Press the Select key and "P 3" will appear in the center window.
3. "P 3" in Center window – "12.0" in the Speed window. (Maximum speed)
 - Use UP or DOWN Speed key to adjust setting.
 - Press the Select key and "P 4" will appear in the center window.
4. "P 4" in Center window – "15.0" in the Incline window. (Incline Cal.)
 - Use the UP or DOWN Elevation key to adjust setting.
 - Press the Select key and "P 5" will appear in the center window.
5. "P 5" in the Center window – "15.0" in the Incline window. (Incline Max.)
 - Use the UP or DOWN Elevation key to adjust setting.
 - Press the Select key and "P 6" will appear in the center window.
6. "P 6" in the Center window – "4" in the Speed window. (Do not Adjust)
 - Use the UP or DOWN Speed key to return to "4"
 - Press the Select key and "P 7" will appear in the center window.
7. "P 7" in the Incline window – "3325" in the Center window. (Do not Adjust)
 - Use the UP or DOWN Speed key to return to "3325"
 - Press the Select key and "P 8" will appear in the center window.

8. "P 8" in the Center window, "Hr" in Incline, and "Ser" in the Speed window.
(Hr = Heart rate, Ser = Serial input, PU = Pulse input)
 - Use the UP or DOWN Incline key to toggle between.
 - Press the Select key and "HrS" will appear in the Incline window.
(HrS = Total hours displayed in center window and minutes in Speed window.)
 - Press the Select key and "dIS" will appear in the Center window. (dIS = Total Distance - Miles in the Incline window, Tenths in the Speed window.)
 - Press the Select key and "CALS" appears in the Center window.
 - Pressing the Speed + and the Incline - keys will change Center display to "CAL" and then pressing the Start key will run unit through speed calibration.
 - Pressing the Select key after "CALS" appears in the Center window will change the Center display to "CALE." When "CALE" is displayed, pressing the Speed + and the Incline - keys will change the Center window display to "GrAd," then pressing the Start key will allow Incline, (Grade), setup.
 - Pressing Select after "CALS" appears and again pressing Select after "CALE" appears will take you out of Setup Check and back to normal operation.

WARNING !!Do Not perform the Grade setup unless instructed to do so!!

Software Downloads

To prepare the control for software downloads,

1. Remove the small square cover at the right rear of the control box being held on by two screws.
 2. With the main power OFF, Hold in the Select and Incline - keys and then turn on the main power while still holding in the keys. The control will give a continuous tone and there will be no displays lighted.
 3. Plug in a 9-pin cable from the computer you are using to download the software and you are ready to download.
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Power On Indicator Not Illuminated

1. Procedure requires the use of a meter capable of reading at least 250 VAC and the ability to measure ohms.
2. Turn treadmill main power switch to OFF. Unplug the treadmill power cable from the wall receptacle.
3. Measure the voltage at the wall outlet for correct voltage level. If correct voltage is not present reset house circuit breaker. If correct voltage is present proceed to next step.

4. Plug the treadmill power cable into the wall receptacle. Turn treadmill main power switch ON.
5. Measure voltage at one of three locations; Inverter between L1 and L2, at power supply PCB JP2 pin 1 to 3 or pin 2 to 4. If voltage is not present proceed to the next step. If voltage is present check connections at power indicator.
6. Measure voltages a C/E filter output, if voltage is not present check connections at C/E filter input. If connections at C/E filter input are good, measure voltage at C/E filter output. If voltage is not present check connections at main voltage circuit indicator.
7. If connections at the main circuit breaker are good, turn main power switch OFF, unplug the treadmill from the wall receptacle. Check the continuity of each conductor of the power cord. If the power cord is good, check the function of the main power switch in the ON and OFF positions.

Main Controller Not Illuminated

1. If the master power switch is in the ON position and the indicator light is illuminated but the controller remains dark, locate and reset the 1/4 amp breakers.
2. Procedure requires the use of a meter capable of reading at least 250 VAC and the ability to measure ohms. If step requires a check of connections perform an ohms test to the cable or connection and component in question.
3. Remove plastic cover behind control box to gain access to the Telco connectors at the back of the display. Verify connectors are secure at back of display and at the power supply board.
4. Remove the treadmill back plate and verify that the Jumper across power spades, located on the rear of the display PCB, is attached.

Test Mode

In some phases of testing, you will be asked to enter the Controller Test Mode. Following are instructions on how to enter and use this mode.

To Enter Test Mode

1. Turn the treadmill main power switch OFF.
2. Press and hold the elevation + and – keys as the treadmill main power switch is turned ON.
3. In the Center display observe “tEst”. (You will have to hold the keys for 5+ seconds before “test” will display.)
4. Press any key to begin Display Segment Test.
5. Press any key to begin Walking Eight Test.
6. Press any key to turn on all displays.
7. Press any key to begin Keypad Test, center display will show “5 1” (as each key is pressed the right hand number will increase when key signal is received), and press

the following keys in the exact sequence: Start, Stop, Scan, Select, Incline +, Incline -, Speed +, Speed -, Cool Down, Weight +, Weight -.

8. Completion of Keypad Test automatically enters Grade Test. Pressing the Incline + or - will display an elevation count. Clear the running belt and press the Stop key to exit the Grade Test. Belt Test begins.

Belt Test

The Belt Test starts immediately after the Grade Test is stopped. PWM (50) is displayed in the Incline window.

1. Press either Elevation + or - keys to temporarily change the roller ratio value. The Roller Ratio is displayed in the Center window.
2. Press either Speed + or - keys to temporarily change the PWM value. The higher the PWM value the faster the belt speed, the lower the PWM value the slower the belt speed.
3. Press either Stop switch to stop the belt and exit the Belt Test.

Polar® Test

Either a chest strap or a pulse simulator may be used to verify operation of the Polar® receiver PCB and circuit.

1. Stand on the belt directly in front of the controller. During the test, an audible tone indicates the receiver and circuit are working correctly.
2. Press any key to exit.

Grip Test (if installed)

1. Place hands on the contact heart rate grips. During the test, an audible tone indicates the Contact heart rate receiver circuit is working correctly.
2. Press any key to exit test.

Eeprom and Watchdog Tests

Eeprom and Watchdog Tests are firmware tests installed by the program engineers to verify operation of the Eeprom and to detect software corruption. Upon completion of Watchdog controller returns to normal operation.

Start Key Is Pressed But Belt Does Not Start

1. Press the Start key on the display and determine if the clock is running. If the clock is not running enter the Test Procedure and proceed to the switch test.
2. Test the start switch for proper operation. Replace the Start keypad if it is not working. If the start switch is working proceed to the motor test and verify operation of the speed sensor and motor run circuits.
3. Verify the speed sensor indicator is working by rolling the motor flywheel and observing the speed indicator (D12) on the power supply board.
4. On the display press the start switch. At the power supply board verify the Start light (D2) and the PWM light (D1) are lit. If they are lit, proceed to the next step, if they are

- not lit, install a test pair of Telco connectors from the display to the power supply board. Press the start switch, if the running belt starts, replace the Telco cables.
5. At the Inverter, verify 220 VAC (110 VAC for 110 volt option between L1 and N), is present between L1 and L2. If voltage is not present check the connection from the inverter to the spade connectors and following these wires back to the main breaker.
 6. If proper voltage is present in step 5 and the three-digit readout on the inverter is dark, replace the inverter drive. If the three-digit readout is lit, measure the dc voltage on the inverter between the black and purple wires. The voltage should be approximately 14vdc. If the voltage is not present measure the voltage at the power supply board J3 black to purple wire. If the voltage is still not present contact the service department.
 7. Measure the dc voltage at the inverter purple and black wire after the start switch has been pressed on the display. The voltage should drop from approximately 14 volts dc to 0 volts dc. If the voltage does not drop at the inverter, check the voltage at the power supply board between the purple and black wire at J2. If the voltage is not present replace the power supply board.

Belt Starts, But Will Not Change Speed

1. Verify audible tone is present when changing the speed. If there is no tone and the value in the speed window is not changing, enter the Test Mode and verify in the display test that the speed UP and DOWN arrows are working. If they are not, replace the keypad.
2. In the Test Mode, go to the motor test. Increase the PWM value and verify the PWM value does increase. If the PWM value is not increasing, replace the display.
3. If the PWM indicator on the power supply board is not flashing at a greater rate as selected by the display, replace the power supply PCB.
4. Change the inverter value at the inverter drive, select local operation. PO5 change the value from 03 to 01; place a jumper wire from the black to purple wire at the inverter. The inverter is in local operation and the belt should start. If the belt does not start, reconnect jumper, once the belt starts use the UP and DOWN arrow to control the belt speed. If the belt starts and the inverter does not increase speed, replace the inverter drive.

Note If the belt does not start, it is an indication the self-test is unsuccessful and does not indicate a bad inverter. Remember to return the value at P03 from 3 to 5.

5. Turn the treadmill main power switch OFF. At the power supply remove the J2 connector. Use a multimeter to verify continuity (ohms) from the Gray wire (PWM) to the inverter Gray wire (pin 5). If the wire is broken or not making a good connection repair or replace the cable. Contact the service department if the problem has not been isolated at this point.

Speed Will Increase, But Not Decrease Speed

1. Enter the Test Mode, select the switch test, and verify the operation of the speed DOWN arrow. If the switch is not functioning replace the switch panel.
2. Proceed to the motor test; use the speed UP and DOWN arrows to vary the PWM value. If the PWM value will increase, but will not decrease, change the controller.
3. If the PWM value is increasing and decreasing in the motor test observe the PWM indicator on the Power Supply Board.
4. If the problem has not been corrected, contact the service department.

Treadmill Will Incline Up Only

1. Enter the Test Mode; verify the operation of the elevation DOWN arrow. If you can not access the test mode, it may be due to a bad elevation switch. Use the setup mode or calibration mode elevation values to use the UP and DOWN elevation arrows. This way the switches can be accessed for testing. Replace the keypad if the panel is defective.
2. If the Elevation Down indicator on the power supply is not lighting, replace the Power Supply board. If the Elevation indicator is lighted but the motor is not turning, measure the voltage on the power supply board from JP1 pin 1 (white) to JP1 pin 3 (red). A value of 220VAC should be present when the Down indicator is lit. (110VAC on 110VAC treadmills.)
3. If the voltage is not present check the Elevation Circuit Breakers. If the circuit breaker is tripped, verify there is nothing binding the elevation wheels or the elevation rod.
4. If the voltage is present use the return line at JP1 pin 1 (white) as your common and measure the voltage at the Top limit switch on the elevation motor. 220VAC should be present, if it is not, follow the wire from the top switch from the limit switch to the MOLEX connector back to the JP1 connector of the power supply board.
5. If the problem is not isolated, contact the service department.

Unit Will Not Elevate

WARNING



In some phases of testing in this section, the treadmill's power should be ON; in others, the power should be OFF. Pay careful attention to the instructions that tell you whether the power should be ON or OFF. If you have the power ON when it should be OFF, you face possible electrical shock, which could lead to serious injury or death. Whenever power is ON, be aware of high voltage connections and use proper care to avoid electric shock to you and anyone near the treadmill.

1. Enter the Test Mode; use the grade test to determine a value of 380-388 counts from the lowest elevation setting. If the grade is not within the 380-388 ranges reset the limit switches. Contact service department for additional information.

2. If the treadmill elevates to the maximum limit switch and back to the minimum elevation switch, but the elevation count does not change from zero, do a continuity test of the brown and orange elevation sensor wires. If there is no continuity, repair or replace the broken section.
3. Check the elevation sensor circuit on the power supply board by connecting the speed sensor cable to the elevation sensor cable connection on the power supply board J1, and rolling the belt motor flywheel. If the incline indicator does not light, replace the power supply board.
4. Check the 1-amp incline circuit breakers. If a breaker is tripped, reset the breaker. Check the landing gear wheels and elevation rod for obstructions. Reset the circuit breaker and test the elevation system again.
5. Check the incline voltage by measuring the power supply board at JP2 pins 1 and 3 (black and brown). If the 220 VAC is not available, check the continuity of the cables to the elevation circuit breakers. Repair or replace any defective wiring.
6. Check the voltage at JP1 pins 1 (common-white) and 2 (Incline Up - black). If the Incline up indicator is lit there should be 220 VAC between the two points. Use the common at pin 1 of JP1 and check the Max. limit switch on the motor. If 220 VAC is present and there is no movement of the elevation, replace the elevation motor. Contact the Service Department for instructions on replacing the elevation motor.

Display Switches Are Inoperable

Enter the Test Mode, use the display test to verify the operation of the switches replace switch panels as necessary.

Maintenance Log

If you have any questions or concerns about the operation of your treadmill, call
TRACKMASTER,

Serial # _____ Date Purchased _____

Purchased From _____ Phone _____

DATE	HOURS	SERVICE COMPLETED	COST

Notes

Parts List and Drawings

1	Running Deck
2	Running Belt
3	Drive Roller
4	Take Up Roller
5	Rear Skid
6	Running Deck Cross Piece
7	Running Deck Buffers
8	Take Up Plate for Roller
9	Bolt for Take Up Roller
10	End Cap Spacer
11	End Cap
12	Anti-Slip Rubber
13	Side Rail Mount
14	Side Rail Right (Not Pictured- Side Rail Left
15	Hood
16	Shoulder Bolt for Elevation Pivot
17	Shoulder Washer
18	Delrin Spacer
19	Fender Washer
20	Lock Nut
21	Elevation Torque Tube
22	Elevation Torque Tube Lock Nut
23	Elevation Torque Tube Delrin Spacer
24	Elevation Torque Tube Mounting Bolt
25	Elevation Landing Gear
26	Elevation Landing Gear Wheels
27	Drive Motor
28	Speed Sensor and Bracket (One Piece)
29	Speed Pick Up Collar
30	Elevation Motor
31	Inverter Drive
32	Serial Number Plate
33	Mains Power Breaker
34	Power On Light
35	Power Supply / Relay Board Breakers
36	Elevation Motor Breakers
37	Control Cover and Faceplate
38	Control Electronics
39	Control Mounting Plate
40	Cable Cover
41	Contact Grips

